



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/711,511

11/14/2000

David K. Gifford

0115274-00015

8013

24325 7590 09/11/2009

PATENT GROUP 2N
JONES DAY
NORTH POINT
901 LAKESIDE AVENUE
CLEVELAND, OH 44114

EXAMINER

MEINECKE DIAZ, SUSANNA M

ART UNIT

PAPER NUMBER

3692

MAIL DATE

DELIVERY MODE

09/11/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID K. GIFFORD

Appeal 2008-000884
Application 09/711,511
Technology Center 3600

Decided: September 11, 2009

Before HUBERT C. LORIN, JOSEPH A. FISCHETTI, and
BIBHU R. MOHANTY, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

David K. Gifford (Appellant) seeks our review under 35 U.S.C. § 134 of the final rejection of claims 1-4 and 23. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We REVERSE but add a new ground of rejection under 35 U.S.C. § 112, second paragraph.¹

THE INVENTION

The invention relates to a network sales system using a plurality of buyer and merchant computers. Specification, p. 1, ll. 16-24. Claims 1, 4, and 23 are the independent claims. All the claims are directed to a sales “system.”. Claim 4, reproduced below, is illustrative of the subject matter on appeal.

4. An electronic sales system comprising
 - means for storing a database of digital advertisements,
 - each digital advertisement for a product including a program,
 - means for communicating a digital advertisement to a buyer computer using Internet transfer protocols,
 - means at said buyer computer for displaying and responding to said digital advertisement comprising
 - display means for displaying said digital advertisement by executing a portion of said advertisement as a program and performing actions as specified by said program,
 - purchase means responsive to a user request for communicating a purchase message to a merchant computer,

¹ Our decision will make reference to the Appellant’s Appeal Brief (“App. Br.,” filed Jan. 29, 2007) and Reply Brief (“Reply Br.,” filed Jun. 25, 2007), and the Examiner’s Answer (“Answer,” mailed Apr. 23, 2007).

means, at said merchant computer, comprising
fulfillment means to send said product to user.

THE REJECTION

The Examiner relies upon the following as evidence of
unpatentability:

Bush	US 5,475,585	Dec. 12, 1995
<i>“ALANTEC: ALANTEC delivers another industry first; IP Multicast Routing Support for Desktop Video Conferencing and Broadcast Video;”</i> Business Editors and Computer Writers, San Jose, CA; Aug. 16, 1993. (“Alantec”)		

The following rejection is before us for review:

1. Claims 1-4 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bush and Alantec.

PRINCIPLES OF LAW

Means-plus-function claim language must be construed in accordance with 35 U.S.C. § 112, paragraph 6, by “look[ing] to the specification and interpret[ing] that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure.” *In re Donaldson Co.*, 16 F.3d 1189, 1193 (Fed. Cir. 1994) (en banc).

When no structure is described in the Specification to support a means-plus-function limitation in a claim, the disclosure is inadequate to explain to one of ordinary skill in the art what is meant by the claim language. In such a situation, a means-plus-function claim would not be amenable to construction and thus would fail to particularly point out and

distinctly claim the invention as required by the second paragraph of section 112.

"[I]f one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112." *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed.Cir.1994) (en banc). This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing § 112, ¶ 6. *See O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed.Cir. 1997). "Fulfillment of the § 112, ¶ 6 trade-off cannot be satisfied when there is a total omission of structure." *Atmel*, 198 F.3d at 1382. While corresponding structure need not include all things necessary to enable the claimed invention to work, it must include all structure that actually performs the recited function. *See Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1119 (Fed.Cir.2002).

Default Proof Credit Card Sys. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1298 (Fed. Cir. 2005).

When the means-plus-function limitation in a claim is a *computer-enabled* means-plus-function limitation, one must set forth in the specification sufficient description of an *algorithm* associated with the function recited in the claim in order to avoid a finding that an applicant has failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.

It is certainly true that the sufficiency of the disclosure of algorithmic structure must be judged in light of what one of ordinary skill in the art would understand the disclosure to impart. *See, e.g., Intel Corp. v. VIA Techs.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003) (knowledge of a person of ordinary skill in the art can be used to make clear how to implement a disclosed algorithm); *Atmel Corp.*, 198 F.3d at 1379 ("[T]he

‘one skilled in the art’ analysis should apply in determining whether sufficient structure has been disclosed to support a means-plus-function limitation.”). That principle, however, has no application here, because in this case there was no algorithm at all disclosed in the specification. The question thus is not whether the algorithm that was disclosed was described with sufficient specificity, but whether an algorithm was disclosed at all.

Aristocrat Techs. Australia Party, Ltd. vs. Int’l Game Tech., 521 F.3d 1328, 1337 (Fed. Cir. 2008).

When there is insufficient description of an algorithm in the Specification to support a computer-enabled means-plus-function limitation in a claim, the disclosure will be considered inadequate to explain to one of ordinary skill in the art what is meant by the claim language.

For computer-implemented means-plus-function claims where the disclosed structure is a computer programmed to implement an algorithm, “the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.” *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed.Cir.1999). Thus the patent must disclose, at least to the satisfaction of one of ordinary skill in the art, enough of an algorithm to provide the necessary structure under § 112, ¶ 6. This court permits a patentee to express that algorithm in any understandable terms including as a mathematical formula, in prose, *see In re Freeman*, 573 F.2d 1237, 1245-46 (CCPA 1978), or as a flow chart, or in any other manner that provides sufficient structure. [new ¶] The district court correctly determined that the structure recited in the ’505 specification does not even meet the minimal disclosure necessary to make the claims definite. Simply reciting “software” without providing some detail about the means to accomplish the function is not enough. *See Aristocrat Techs. Austl. Pty v. Int’l Game Tech.*, 521 F.3d 1328, ---- (Fed.Cir.2008) (“For a patentee to claim a means for performing a particular function and then to disclose only a general purpose computer as the structure designed to perform

that function amounts to pure functional claiming. Because general purpose computers can be programmed to perform very different tasks in very different ways, simply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim to ‘the corresponding structure, material, or acts’ that perform the function, as required by section 112 paragraph 6.”). This court does not impose a lofty standard in its indefiniteness cases. *See, e.g., Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1214 (Fed.Cir.2003). But in this case, the claims are already quite vague. Without any corresponding structure, one of skill simply cannot perceive the bounds of the invention.

Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1340-41 (Fed. Cir. 2008).

When a Specification discloses *no* algorithm corresponding to a computer-enabled means-plus-function limitation in a claim, an applicant has necessarily failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112. *See also Aristocrat*, 521 F.3d 1328, 1333 (*quoting Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1253 (Fed. Cir. 2005) (“‘[t]he corresponding structure for a § 112 ¶ 6 claim for a computer-implemented function is the algorithm disclosed in the specification.’ *Harris* 417 F.3d at 1249.”); *Net MoneyIN, Inc. v. Verisign, Inc.* 545 F.3d 1359 (Fed. Cir. 2008) (“‘[A] means-plus-function claim element for which the only disclosed structure is a general purpose computer is invalid if the specification fails to disclose an algorithm for performing the claimed function.’”); *See also Blackboard, Inc. v. Desire2Learn Inc.*, 91 U.S.P.Q.2d 1481 (Fed. Cir. 2009) (finding Blackboard’s means-plus-function claims indefinite because the patent describes an undefined component, i.e., a black box, that performs the

recited function but does not disclose how the component performs the function). *See further Ex parte Catlin*, 90 USPQ2d 1603 (BPAI 2009) (precedential) (during prosecution, computer-enabled means-plus-function claims will be held unpatentable under 35 U.S.C. § 112, second paragraph, as being indefinite if a Specification fails to disclose any algorithm corresponding to the recited function in the claims).

ANALYSIS

We will reverse the rejection of claims 1-4 and 23 under 35 U.S.C. §103(a) as being unpatentable over Bush and Alantec.

As further explained below, we will enter a new ground of rejection of claims 1-4 and 23 under 35 U.S.C. § 112, second paragraph, because they are indefinite. Therefore, their rejection over prior art must fall, pro forma, as being necessarily based on speculative assumptions as to the scope of these claims. *See In re Steele*, 305 F.2d 859, 862-63 (CCPA 1962). Our decision in this regard is based solely on the indefiniteness of the subject matter and does not reflect on the adequacy of the prior art evidence applied in support of the rejections

All the claims on appeal are apparatus claims and all include means-plus-function language. This language must first be construed, in accordance with 35 U.S.C. § 112, paragraph 6, if invoked, before a determination can be made as to whether the prior art renders obvious the claimed subject matter. The burden of doing this falls initially on the Examiner. We agree with the Appellant (*see* App. Br. 18) that the record in that regard is deficient. Claim construction is an important preliminary step

in any analysis to determine whether subject matter claimed would have been obvious to one of ordinary skill in the art at the time of the invention

Analysis begins with a key legal question - *what* is the invention *claimed*? Courts are required to view the claimed invention *as a whole*. 35 U.S.C. § 103. Claim interpretation, in light of the specification, claim language, other claims, and prosecution history, is a matter of law and will normally control the remainder of the decisional process.

Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1567-68 (Fed. Cir. 1987). The construction to be given the means-plus-function limitations will determine their scope and meaning, as well as that of the claims as a whole. If the claim scope and meaning is determined, the claims will be reasonably broadly construed before the claimed subject matter is compared with the prior art disclosure in determining whether the claimed subject matter would have been obvious to one of ordinary skill in the art at the time of the invention.

NEW GROUND

Pursuant to 37 C.F.R. § 41.50(b), we enter a new ground of rejection.

We reject claims 1-4 and 23 under 35 U.S.C. § 112, second paragraph as being indefinite. We take claim 4 as representative. However, given that means-plus-function language is also present in claims 1-3 and 24, if prosecution of the application should continue, the scope and meaning of these claims should also be determined and in the manner discussed below with respect to claim 4.

We count seven limitations in claim 4 which are in means-plus-

function format. We will focus on the “purchase means” limitation. But the analysis to follow applies equally as well to the other five means-plus-function limitations in claim 4.

The limitation “purchase means responsive to a user request for communicating a purchase message to a merchant computer”² includes the term “means.” A claim limitation that includes the term “means” is presumed to be intended to invoke means-plus-function treatment, i.e., treatment under 35 U.S.C. § 112, 6th paragraph. *Rodime PLC v. Seagate Tech., Inc.*, 174 F.3d 1294, 1302 (Fed. Cir. 1999) (“presumed an applicant advisedly used the word “means” to invoke the statutory mandates for means-plus-function clauses.”).

Construing means-plus-function claim language in accordance with 35 U.S.C. § 112, paragraph 6, is a two step process.

The first step in construing a means-plus-function claim limitation is to define the particular function of the claim limitation. *Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369, 1376 (Fed.Cir.2001). "The court must construe the function of a means-plus-function limitation to include the limitations contained in the claim language, and only those limitations." *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed.Cir.2002). Thus, according to the language of claim 11, the function of the "horizontal drive means" is "rotating said lamp unit in a horizontal direction." Ordinary principles of claim construction govern interpretation of this claim language, *see id.*, and, for all the reasons discussed in the preceding two

² This means-plus-function wording is similar to that which was subjected to §112, 6th treatment in *Automotive Tech. Int'l Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1277. (Fed. Cir. 2007) (“means responsive to the motion of said mass ...”).

sections, we construe this function according to its ordinary meaning as not requiring rotation through 360°.

The next step in construing a means-plus-function claim limitation is to look to the specification and identify the corresponding structure for that function. "Under this second step, 'structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.'" *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed.Cir.2003) (quoting *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed.Cir.1997)).

Golight Inc. v. Wal-Mart Stores Inc., 355 F.3d 1327, 1333-34 (Fed. Cir. 2004).

Step 1. The first step in construing a means-plus-function claim limitation is to define the particular function in the means-plus-function limitation.

The particular function of the means-plus-function claim limitation at issue is "[purchasing via] respon[ding] to a user request for communicating a purchase message to a merchant computer." Answer 9.

Further, given the claim as a whole, one of ordinary skill in the art would construe the claim limitation "purchase means responsive to a user request for communicating a purchase message to a merchant computer" (Answer 9) to refer to a *computer-enabled* means-plus-function limitation.

Step 2. The next step in construing a means-plus-function claim limitation is to look to the Specification and identify the corresponding structure for that function. Given that the claim limitation "purchase means responsive to a user request for communicating a purchase message to a merchant computer" (Answer 9) is a *computer-enabled* means-plus-function limitation, this requires looking to the Specification and identifying the

algorithm corresponding to the function “[purchasing via] respon[ding] to a user request for communicating a purchase message to a merchant computer.” *See also Blackboard, Net MoneyINC, Finisar, Aristocrat, and Catlin, supra.*

In that regard, we note that in the Summary of Claimed Subject Matter (App. Br. 6) the Appellant has attempted to show where in the Specification, by page and line number, there is disclosed structure, material, or acts corresponding to each claimed function as required by 37 C.F.R. § 41.37(c)(1)(v) (2007). With regard to the claim 4 means-plus-function limitation at issue, the Appeal Brief directs us to p. 13, l. 13 - p. 14, l. 8 of the Specification for disclosure of the corresponding structure, which the Appellant states is “executable software stored on a computer that initiates a linked message upon execution.” App. Br. 8. (*See also* App. Br. 7 where the “purchase means” of claim 1 is stated to be “disclosed in the specification under an exemplary embodiment as software implemented on a computer that allows a user to link to the merchant site (FIGs. 3-4, page 12, line 7 - page 13, line 8).” *See further* App. Br. 8: “The purchase means is disclosed in an exemplary embodiment as executable software stored on a computer that initiates a linked message upon execution (page 13, line 13 - page 14, line 8).”)

We have reviewed the disclosure at p. 13, l. 13 - p. 14, l. 8, but have not been able to discern the algorithm corresponding to the function “[purchasing via] respon[ding] to a user request for communicating a purchase message to a merchant computer.” The disclosure at p. 13, l. 13 - p. 14, l. 8 of the Specification is reproduced below:

Figure 6 is a flowchart that more fully describes the information flow in the purchase transaction shown in Figures 2 to 5. An initial user inquiry 19 from activating link 1 results in the HTTP request 20 for a specific document with a specified URL. The URL specifies the name of the merchant computer. The merchant computer retrieves the document given the URL at 21, and returns it to the buyer computer at 22. The buyer computer displays the resulting HTML, document at 23. When the user activates link 5, an HTTP request 25 is sent to the merchant computer requesting the document.

In an alternate embodiment, document 22 is executed at 23 as a program. A program is defined as a set of instructions that can exhibit conditional behavior based upon user actions or the environment of the buyer computer. As is known to those skilled in the art, there are many techniques for representing programs as data. The program can be interpreted or it can be directly executed by the buyer computer. The program when executed will cause the buyer computer to interact with the user leading to the user purchase request 24, and the purchase message 25.

We see nothing in this disclosure which describes an algorithm corresponding to the function “[purchasing via] respon[ding] to a user request for communicating a purchase message to a merchant computer.” We reach the same conclusion about Figures 2-6 and the passages at p. 12, l. 7 - p. 13, l. 8 of the Specification. These disclosures explain what the purchase means is expected to do in the context of the invention. In effect, the Specification repeats, in different words, the function at issue. There is no disclosure that explains the structure of the algorithm itself that would cause the recited function to be performed. Also, there is no evidence on the record that one of ordinary skill in the art at the time of the invention would have understood what this algorithm would be. Given all this, we find that the Specification does not adequately describe an algorithm corresponding to the function “purchase means responsive to a user request for

communicating a purchase message to a merchant computer” such that one of ordinary skill in the art could determine the scope of claim 4.

We are cognizant that the Specification discloses using a software architecture based on known conventions of the World Wide Web. *See* Specification, p. 11, ll. 7-19. An algorithm may be conventional and, if so stated in the Specification, may provide adequate structure corresponding to a function recited in a computer-enabled means-plus-function limitation to satisfy the definiteness requirement of 35 U.S.C. § 112, second paragraph. *Cf. In re Dossel*, 115 F.3d 942, 946-47 (Fed.Cir.1997):

Neither the written description nor the claims uses the magic word “computer,” nor do they quote computer code that may be used in the invention. Nevertheless, when the written description is combined with claims 8 and 9, the disclosure satisfies the requirements of § 112 p. 2. As the written description discloses, the clauses in question claim a device that receives digital data words from a memory and data input from a user. The device then computes, from the received data, the current distribution by mathematical operations including a matrix inversion or pseudo inversion, and then outputs the result to a display. While the written description does not disclose exactly what mathematical algorithm will be used to compute the end result, *it does state that “known algorithms” can be used to solve standard equations which are known in the art.*

Emphasis added.

But there are two difficulties hindering one of ordinary skill from relying on this disclosure of known conventions to ascertain the algorithm corresponding to the function at issue such that the scope of claim 4 can be determined.

First. The Specification does not explain which conventional program/algorithm among the myriad of allegedly known programs corresponds to the function at issue.

Second. The Specification directs the reader to Appendices A-D for the available programs. But we have been unable to find these Appendices in the record of the application before us. These Appendices may have been inadvertently omitted from the Specification and yet are completely contained in a prior application for which a benefit under § 1.78 was claimed. In that case, the benefit claim could have been considered an incorporation by reference of the inadvertently omitted Appendices. *See* 37 C.F.R. § 1.57(a). Assuming that was the case, the Appellant was nevertheless required to amend the Specification to include the inadvertently omitted Appendices “in no case later than the close of prosecution as defined by §1.114(b)”. 37 C.F.R. § 1.57(a)(1). “Prosecution in an application is closed ... means that the application is under appeal” §1.114(b).

Assuming these Appendices existed and depending on what they contain, it is nevertheless important to note that “Office personnel must review the description in the specification, without relying on any material from [an] incorporated document, and apply the “one skilled in the art” analysis to determine whether one skilled in the art could identify the corresponding structure (or material or acts) for performing the recited function to satisfy the definiteness requirement of 35 U.S.C. 112, second paragraph.” *See* Manual of Patent Examining Procedure (MPEP) § 2181, Part III (B) (8th ed., Rev. 7, Jul. 2008).

The inquiry under [35 U.S.C.] § 112, ¶ 2, does not turn on whether a patentee has “incorporated by reference” material into the specification relating to structure, but instead asks first ‘whether structure is described in the specification, and, if so,

whether one skilled in the art would identify the structure from that description.’

Default Proof Credit Card System, Inc. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1301 (quoting *Atmel Corp. v. Information Storage Devices, Inc.* 198 F 3d. 1374, 1381).

[Section 112, Para. 6] sets forth a simple requirement, a *quid pro quo* , in order to utilize a generic means expression. All one needs to do in order to obtain the benefit of that claiming device is to recite some structure corresponding to the means in the specification, as the statute states, so that one can readily ascertain what the claim means and comply with the particularity requirement of Para. 2. If our interpretation of the statute results in a slight amount of additional written description appearing in patent specifications compared with total omission of structure, that is the trade-off necessitated by an applicant’s use of the statute’s permissive generic means term.

Atmel, 198 F 3d. at 1378. As it now stands, one skilled in the art would not be able to identify the structure (*i.e.*, the algorithm) for performing the recited function at issue from the Specification. *See* MPEP, § 2181, Part III (B)(2).

For the foregoing reasons, we find that the Specification does not adequately describe an algorithm corresponding to the function “purchase means responsive to a user request for communicating a purchase message to a merchant computer”. The Specification fails to disclose an algorithm corresponding to the recited function at issue in claim 4 such that one of ordinary skill in the art could determine the scope of claim 4. Accordingly, we reject claim 4 under 35 U.S.C. § 112, second paragraph, as being indefinite.

The analysis above applies equally as well to independent claims 1 and 23. They also include the aforesaid “purchase means” limitation,

using similar functional language. Accordingly, we reject claims 1 and 23 under 35 U.S.C. § 112, second paragraph, as being indefinite for the same reasons used to reject claim 4. Claims 2 and 3 depend from claim 1 and therefore include the same deficiency. Thus, claims 2 and 3 are also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

CONCLUSIONS

We conclude that the Examiner erred in rejecting claims 1-4 and 23 under 35 U.S.C. §103(a) as being unpatentable over Bush and Alantec.

DECISION

The decision of the Examiner to reject claims 1-4 and 23 is reversed and we enter a new ground of rejection of claims 1-4 and 23 under 35 U.S.C. § 112, second paragraph.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner

Appeal 2008-000884
Application 09/711,511

- (2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

REVERSED; 37 C.F.R. § 41.50(b)

mev

JONES DAY
NORTH POINT
901 LAKESIDE AVENUE
CLEVELAND, OHIO 44114-1190